

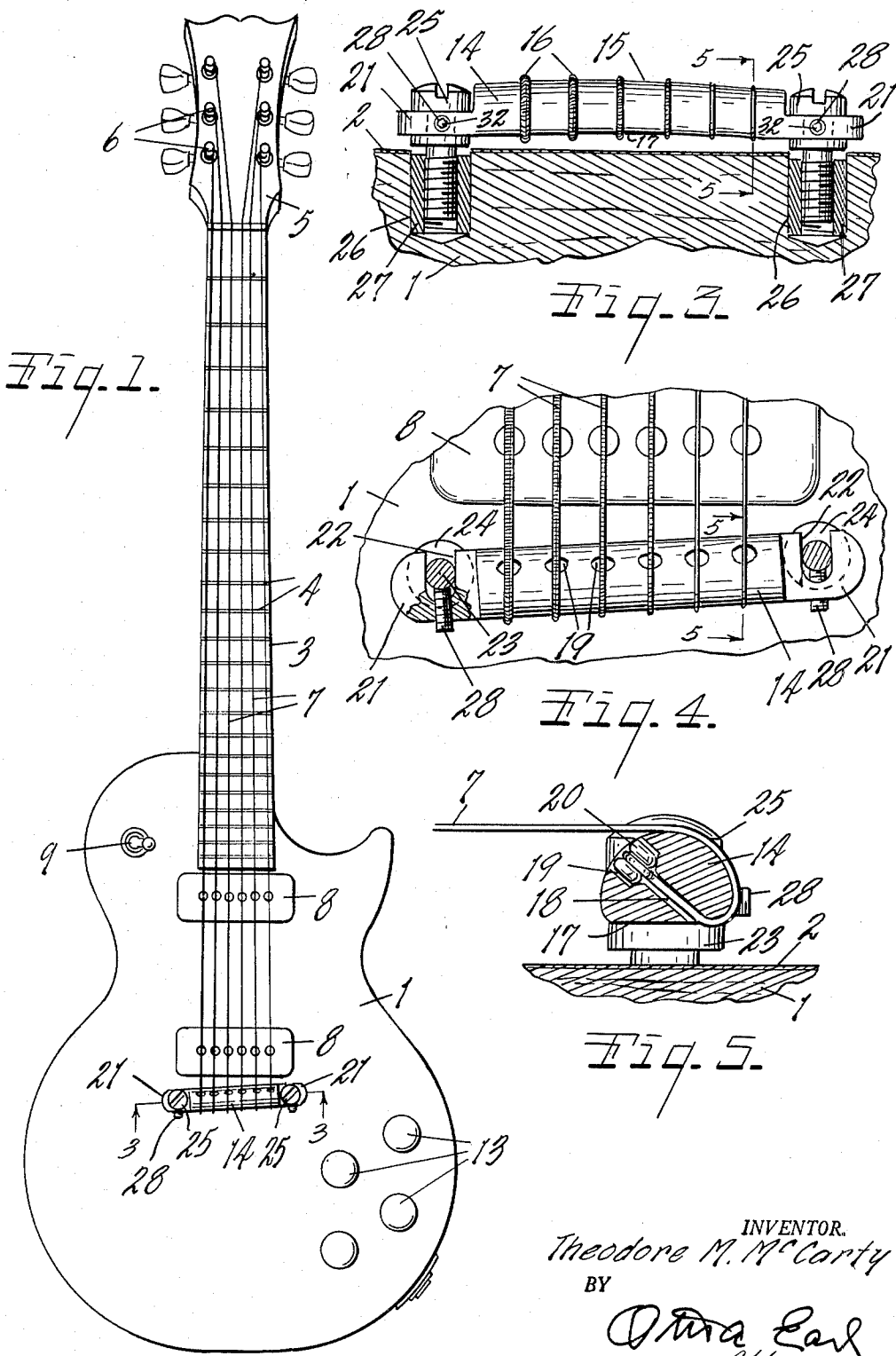
Aug. 2, 1955

T. M. McCARTY
STRINGED MUSICAL INSTRUMENT OF THE GUITAR TYPE
AND COMBINED BRIDGE AND TAILPIECE THEREFOR

2,714,326

Filed Jan. 21, 1953

2 Sheets-Sheet 1



INVENTOR.
Theodore M. McCarty
BY
Oma Earl
Attorney

Aug. 2, 1955

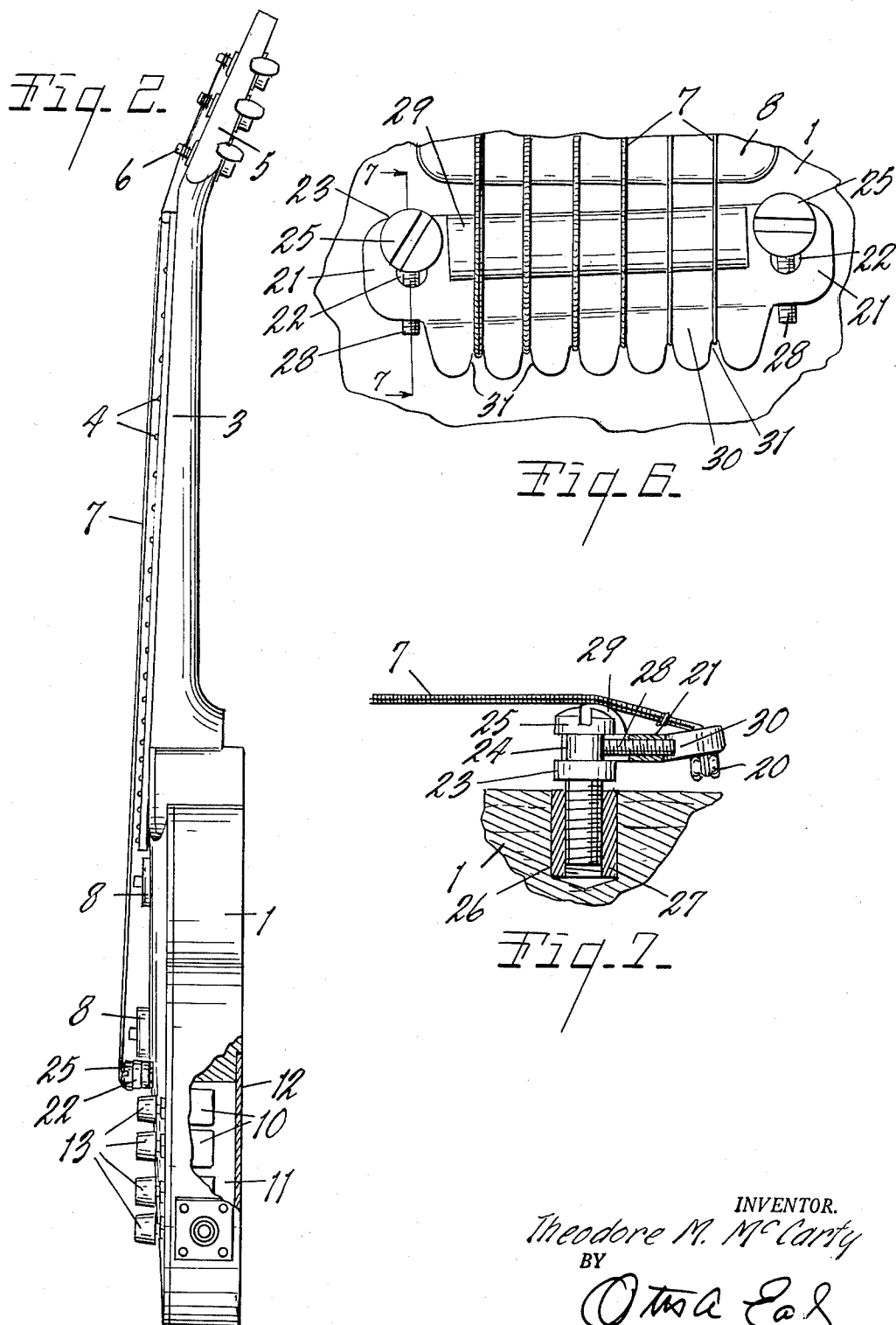
T. M. McCARTY

2,714,326

STRINGED MUSICAL INSTRUMENT OF THE GUITAR TYPE
AND COMBINED BRIDGE AND TAILPIECE THEREFOR

Filed Jan. 21, 1953

2 Sheets-Sheet 2



INVENTOR.
Theodore M. McCarty
BY
Ottis E. L.
Attorney.

2,714,326

STRINGED MUSICAL INSTRUMENT OF THE GUITAR TYPE AND COMBINED BRIDGE AND TAILPIECE THEREFOR

Theodore M. McCarty, Kalamazoo, Mich., assignor to Gibson, Inc., Kalamazoo, Mich.

Application January 21, 1953, Serial No. 332,374

12 Claims. (Cl. 84-299)

This invention relates to improvements in a stringed musical instrument of the guitar type and combined bridge and tailpiece therefor.

The main objects of this invention are:

First, to provide a bridge assembly for stringed musical instruments of the electrically amplified Spanish guitar type which has a wide range of adjustment to accommodate different sized sets of graduated strings and one which has a wide range of adjustment to meet the requirements of particular players.

Second, to provide a combined bridge and tailpiece for electrically amplified stringed instruments which is tiltably adjustable both vertically and horizontally, thus adapting it for a wide range of strings and player requirements.

Third, to provide a stringed musical instrument of the class described having these advantages and one which is attractive in appearance and one in which the adjusting elements for controlling the electrical pickup are unobstructed by the bridge.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a plan view of a stringed musical instrument of the Spanish guitar type embodying my invention.

Fig. 2 is a side elevational view thereof looking from the right of Fig. 1 and partly broken away to show structural details.

Fig. 3 is an enlarged fragmentary view partially in vertical transverse section on a line corresponding to line 3-3 of Fig. 1.

Fig. 4 is an enlarged fragmentary plan view.

Fig. 5 is an enlarged fragmentary vertical section on a line corresponding to line 5-5 of Figs. 3 and 4.

Fig. 6 is a fragmentary plan view of a modified form or embodiment of my invention.

Fig. 7 is a fragmentary view partially in section on a line corresponding to line 7-7 of Fig. 6.

In the accompanying drawing, 1 represents the body of the instrument which is desirably solid except for certain chambers or recesses formed therein to receive parts, as will be described. The top is flat and 2 indicates the finish. The neck 3 is provided with the usual frets 4 and the head 5 with tuning pins 6 for the graduated set of strings indicated at 7.

The instrument illustrated is provided with two electrical pickups 8, 8 controlled by the switch 9. The tone and volume control elements are conventionally indicated at 10 in Fig. 2, these being arranged in a chamber 11 provided in the body 1 and having a closure 12. Finger pieces 13 are disposed or project from the top of the body.

The combined bridge and tailpiece 14 of Figs. 1 to 5, inclusive, is bar-like in form and has an upwardly and transversely curved string supporting surface or face 15 for a graduated set of strings as 16. The under side of the bridge member 14 is flattened at 17. The bridge member has a downwardly and rearwardly inclined bore 18 for each string terminating at the front side of the bridge member in an enlargement 19 receiving the string anchoring element 20. The strings are wrapped around the transversely curved string supporting face of the bridge member and their ends inserted in the bores 18

and secured or anchored by the anchoring elements 20. At each end the bridge member is provided with an ear-like extension 21 of flat section 9 having a slot 22 therein opening at its forward edge. The supporting posts 23 have annular slots or grooves 24 in the head portions 25 thereof receiving these ears.

The body member 1 is provided with vertical bores 26 receiving the sleeve-like socket members 27 which are internally threaded to threadedly receive the post. The post sockets are mounted on the body in transversely spaced relation and desirably in a plane inclined to the longitudinal plane of the neck, the angle being such that there is a gradual increase in the length of the strings from the smaller to the larger. The bridge is supported for vertically adjusting the strings relative to the frets of the instrument and also relative to the pickups. Adjustment of the bridge may be equal at both ends thereof or the bridge may be tilted longitudinally.

The bridge may also be tiltingly angularly adjusted relative to the longitudinal plane of the strings and this is accomplished by the adjusting and string thrust supporting screws 28 which are threaded into the supporting ears 21 of the bridge from the rear side thereof to engage the posts as is illustrated, and sustain the thrust of the bridge on the posts under the stress of the strings. The ears slidably fit within the grooves or slots on the post heads with the side edges of the slots in the ears in engagement with the posts and sustaining end thrust on the bridge.

It will be understood that the load on the bridge as the result of the tensioning of the strings is a very substantial load. This mounting of the post and the mounting of the bridge on the post effectively sustains such load and the parts are so associated and supported that there is no vibration between the bridge and its supports.

In the modification shown in Figs. 6 and 7, the bridge member 29 is provided with a rearwardly projecting web-like portion 30 having notches 31 receiving the strings which are provided with the string anchoring elements 20 disposed on the under side of this extension. Otherwise the structure is the same as that of the embodiment of Figs. 1 to 5 inclusive.

The screws 28 are of the Allen setscrew type having tool receiving sockets 32. These screws project but slightly so they are not likely to be engaged by the hands or clothing of the player. The portion of the body in which the control elements 13 are located is unobstructed.

With the parts arranged as illustrated and described, the instrument has a wide range of adjustment to accommodate sets of strings of different sizes to meet the requirements of the particular player and the instrument may be quickly and accurately adjusted to meet the requirements of the strings and the requirements of the particular player.

I have illustrated and described my invention in a highly practical embodiment thereof. I have not attempted to illustrate or describe other embodiments or adaptations as it is believed that this disclosure will enable those skilled in the art to embody or adapt the invention as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A stringed musical instrument of the class described including a body and a neck, a bar-like bridge member having a longitudinally and transversely curved string supporting face and having inwardly and rearwardly inclined string bores provided with enlargements at their front ends opening on the front side of the bridge member and adapted to receive anchoring elements of strings disposed on the bridge and wrapped around the rear side thereof and inserted in said string bores, said bridge member having ears at its ends provided with slots opening at their front edges, post sockets mounted on

said body in transversely spaced relation and in a plane inclined to the longitudinal plane of the neck, posts threadedly engaging said sockets for vertical adjustment therein and provided with slots in which the ears of said bridge member are disposed with the side edges of the slots in supported engagement with the posts, and bridge adjusting and thrust sustaining screws threaded into said ears to engage said posts.

2. A stringed musical instrument of the class described including a body, a bar-like bridge member having a longitudinally and transversely curved string supporting face and having inwardly and rearwardly inclined string bore provided with enlargements at their front ends opening on the front side of the bridge member and adapted to receive anchoring elements of strings disposed on the bridge and wrapped around the rear side thereof and inserted in said string bores, said bridge member having ears at its ends provided with slots opening at their front edges, post sockets mounted on said body in transversely spaced relation, posts threadedly engaging said sockets for vertical adjustment therein and provided with slots in which the ears of said bridge member are disposed, and bridge adjusting and thrust sustaining screws threaded into said ears to engage said posts.

3. A stringed musical instrument of the class described including a body, a bridge member having a string supporting face and openings with which strings disposed on the bridge may be retainingly engaged, said bridge member having ear-like portions at the ends thereof provided with slots opening at their forward edges, post sockets mounted on said body in transversely spaced relation, posts threadedly engaging said sockets for vertical adjustment therein and provided with slots in which the ears of said bridge member are disposed, and bridge adjusting screws threaded into said ears to supportingly engage said posts.

4. A stringed musical instrument of the class described including a body, a bridge member having a transversely curved string supporting face, a rearwardly projecting web-like string anchoring element having spaced ring receiving notches in its edge, said bridge member having post engaging portions at its ends provided with forwardly opening slots, post sockets mounted on said body in transversely spaced relation, posts threadedly engaging said sockets for vertical adjustment and with which the said forwardly opening slots of said bridge member are engaged, and bridge adjusting screws carried by said bridge member and supportingly engaging said posts.

5. A stringed musical instrument of the class described including a body and a neck, a bridge member having an upwardly facing spring supporting face and provided with integral string connecting means for strings supported on said string supporting face, posts threadedly mounted on said body for vertical adjustment thereon and having heads provided with annular grooves, said bridge member being provided with horizontally flat end portions disposed in said grooves and having forwardly opening slots receiving said posts, and bridge adjusting screws carried by the bridge and coacting with said posts.

6. A stringed musical instrument of the class described including a body, a bridge member having a string supporting face and openings with which strings disposed on the bridge may be retainingly engaged, said bridge member having ear-like portions at the ends thereof provided with slots opening at their forward edges, posts mounted on said body for vertical adjustment and provided with slots in which the ears of said bridge member are engaged, and bridge adjusting screws threaded into said ears to supportingly engage said posts.

7. A stringed musical instrument of the class described including a body, a bridge member having a rearwardly projecting string anchoring element provided with string attaching notches in its rear edge, said bridge member having slotted post engaging portions, posts mounted on said body for vertical adjustment and receiving said

slots of said bridge member, and bridge adjusting screws carried by said bridge member and supportingly engaging said posts.

8. A stringed musical instrument of the class described including a body, a bridge member having an upwardly facing transversely curved string supporting face and provided with means for attaching strings thereto, an independently adjustable supporting post for each end of the bridge member providing means for independent vertical adjustment thereof the bridge member being supported by the post for adjustment transversely thereof, and bridge adjusting and thrust sustaining screws carried by said bridge member and coacting with the posts for adjustment of the bridge member transversely relative to the posts.

9. A combined bridge and tailpiece assembly for stringed musical instruments comprising a bar-like bridge member having a longitudinally and transversely curved string supporting face, said bridge member being flattened on its under side and having ears at its ends provided with slots opening at their front edges and having inwardly and rearwardly inclined string bores provided with enlargements at their front ends opening on the front side of the bridge member and adapted to receive anchoring elements of strings disposed on the bridge and wrapped around the rear side thereof and inserted in said string bores, post sockets adapted to be mounted on the body of an instrument, posts threadedly engageable with said sockets for adjustment therein and provided with slots in which the ears of said bridge member are disposed with the side edges of the slots in supported engagement with the posts, and bridge adjusting and thrust sustaining screws threaded into said ears to engage said posts.

10. A combined bridge and tailpiece assembly for stringed musical instruments comprising a bridge member having a string supporting face, said bridge member having ears at its ends provided with slots opening at their front edges and having inwardly and rearwardly inclined string bores provided with enlargements at their front ends opening on the front side of the bridge member and adapted to receive anchoring elements of strings disposed on the bridge and wrapped around the rear side thereof and inserted in said string bores, post sockets adapted to be mounted on the body of an instrument, posts threadedly engageable with said sockets for adjustment therein and provided with slots in which the ears of said bridge member are disposed, and bridge adjusting and thrust sustaining screws threaded into said ears to engage said posts.

11. A combined bridge and tailpiece assembly for stringed musical instruments having a string supporting face and means with which strings disposed on the bridge may be retainingly engaged, said bridge member having ear-like portions at the ends thereof provided with slots opening at their forward edges, independently adjustable supporting posts provided with slots in which the ears of said bridge member are engaged, and bridge adjusting and thrust sustaining screws threaded into said ears to engage said posts.

12. A bridge member for stringed musical instruments of the class described provided with means for attaching strings thereto, independently and vertically adjustable supporting means for each end of the bridge member, and bridge member adjusting means carried by said bridge member and coacting with the posts for adjustment of the bridge member relative to the posts.

References Cited in the file of this patent

UNITED STATES PATENTS

455,221	Lorang	June 30, 1891
601,071	Borcur	Mar. 22, 1898
897,964	De Julio	Sept. 8, 1908
2,074,982	Di Marzio	Mar. 23, 1937
2,588,726	Hoover	Mar. 11, 1952